

### **REMARKS**

Claims 1-19, 21-33, and 40 are currently pending. By this Amendment, Claims 10, 11, 18, and 25 have been amended, no claims have been cancelled, and Claim 41 has been added. Thus, Claims 1-19, 21-33, 40, and 41 are currently at issue.

#### **I. Anticipation Rejections Over Shelver**

In Paragraph 2 of the Office Action, the Examiner rejected Claims 1-10, 33, and 40 over U.S. Patent No. 3,889,434 to Shelver ("Shelver"). Shelver discloses a window having two panes (138,139) of glass held by an adapter strip (120) having a mastic sealing material (131) therein. (Shelver, Col. 3, Lines 47-56; Col. 5, Lines 17-26). The adapter strip (120) is a strip of extruded aluminum having two edges (121,122) and a tongue (130). (Shelver, Col. 5, Lines 33-40). The tongue (130) engages the window frame to attach the adapter (120) to the frame, and the adapter (120) extends completely around the inside of the window frame. (Shelver, Col. 3, Lines 56-62; FIG. 3).

In order for a reference to constitute a §102(b) bar to patentability, the reference must disclose each and every element of the claimed invention. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 U.S.P.Q. 781, 789 (Fed. Cir. 1983). It is well-settled law that the burden of establishing a *prima facie* case of anticipation resides with the Patent & Trademark Office. *Ex Parte Skinner*, 2 U.S.P.Q. 2d 1788 (BPAI 1986).

##### **A. Claims 1-9**

Claim 1 includes, among other elements, "a connector extending from the base and configured to engage the muntin bar end." Applicant respectfully submits that Shelver does not disclose, teach, or suggest this element of Claim 1.

Applicant maintains its position that the tongue (130) of the adapter strip (120) of Shelver is not configured for engaging a muntin bar end. Shelver does not disclose a muntin bar end at all. Rather, the tongue (130) is configured for engaging the window frame and cannot engage a muntin bar end, because if a muntin bar were present, it would be on the opposite side of the

adapter strip (120) as the tongue (130). Thus, the tongue (130) of Shelver cannot be considered to be the “connector” recited in Claim 1, as asserted by the Examiner. As a response to the Examiner’s arguments, Applicant points out that the Examiner has not substantively responded to Applicant’s arguments that the tongue (130) of the adapter strip (120) of Shelver is structurally incapable of engaging a muntin bar end. The Examiner has only presented the unsupported statement that “the prior art structure is capable of performing the intended use,” (Paragraph 5) and has not provided any explanation of how the adapter strip (120) of Shelver could engage, or would be capable of engaging, a muntin bar end. Accordingly, Shelver does not disclose, teach, or suggest the above element of Claim 1, and Shelver cannot anticipate Claim 1.

Additionally, Applicant restates its argument that the adapter strip (120) of Shelver does not fall within the scope of amended Claim 1 because the adapter strip (120) is not a “muntin clip.” Shelver does not disclose a muntin clip at all. Claim terms are presumed to have the ordinary and customary meanings attributed to them by those of ordinary skill in the art. *Sunracer Roots Enter. Co. v. SRAM Co.*, 336 F.3d 1298, 1302, 67 U.S.P.Q.2d 1438, 1441 (Fed. Cir. 2003). Muntin clips are widely known and used in the window art, and the customary meaning of “muntin clip” used by those skilled in the art does not encompass the adapter strip (120) disclosed in Shelver. As a response to the Examiner’s arguments, Applicant points out that the Examiner has not substantively responded to Applicant’s arguments. Specifically, the Examiner has not explained how a structure could reasonably be considered to be a “muntin clip” when: (A) It is never described anywhere in the specification of Shelver as a “muntin clip,” and (B) It does not fit within any definition of “muntin clip” used by those skilled in the art. The Examiner’s position requires the term “a muntin clip” to be interpreted to mean “a structure,” which is improper, because it strips the claim term of all meaning. Thus, because Shelver does not disclose a muntin clip, Shelver cannot anticipate Claim 1.

Claims 2-9 depend from Claim 1 and contain all the elements of Claim 1. Thus, for the reasons stated above with respect to Claim 1, Shelver does not disclose, teach, or suggest all the elements of Claims 2-9, and Shelver cannot anticipate Claims 2-9.

**B. Claim 10**

Claim 10, as amended, includes, among other elements, “a leg extending from the base and configured to engage the muntin bar end, the leg having first and second opposed surfaces, the first surface having at least one projection extending therefrom adapted to engage the muntin bar end and the second surface having at least one projection extending therefrom adapted to engage the muntin bar end.” Applicant respectfully submits that Shelver does not disclose, teach, or suggest this element of Claim 10. As stated before and stated above with respect to Claim 1, Shelver does not disclose, teach, or suggest any connection to a muntin bar end or any ability to connect to a muntin bar end. The tongue (130) of Shelver engages a window frame, rather than a muntin bar end. Additionally, the tongue (130) of Shelver is flat on both sides (See FIG. 4), and does not have two opposed surfaces that each have a projection extending therefrom, as recited in amended Claim 10. Thus, for the reasons stated above with respect to Claim 1, Shelver does not disclose, teach, or suggest this element of Claim 10, and Shelver cannot anticipate Claim 10.

Further, like Claim 1, Claim 10 recites a “muntin clip.” As stated before and stated above with respect to Claim 1, the adapter strip (120) of Shelver does not fall within the scope of amended Claim 10 because the adapter strip (120) is not a “muntin clip.” Further, the Examiner has not explained how or why the adapter strip (120) of Shelver could be considered a “muntin clip.” Thus, for this additional reason, Shelver cannot anticipate Claim 10.

**C. Claim 33**

Claim 33 includes, among other elements, “a connector extending perpendicularly from the second side of the base and configured to be inserted into the muntin bar end and engage the inner walls of the muntin bar end such that the entire muntin clip is between the panes of glass.” Applicant respectfully submits that Shelver does not disclose, teach, or suggest this element of Claim 33.

As stated before and stated above with respect to Claims 1 and 10, Shelver does not disclose, teach, or suggest any connection to a muntin bar end or any ability to connect to a

muntin bar end. The tongue (130) of Shelver engages a window frame, rather than a muntin bar end. Additionally, Shelver does not disclose, teach, or suggest that the tongue (130) can be inserted into a muntin bar end and engage the inner walls of the muntin bar end. In fact, because the tongue (130) of Shelver stretches for the entire length of the window frame, it is highly unlikely that it could be inserted into a muntin bar end. Further, the edges of the adapter strip (120) of Shelver are located on the outside of the window panes (138,139). This is necessary for the adapter strip (120) to hold the window panes (138,139). Therefore, the tongue (130) of Shelver is not configured for engaging a muntin bar end “such that the entire muntin clip is between the panes of glass.” Applicant also restates that the Examiner has not responded substantively to Applicant’s arguments. Thus, for the reasons stated above with respect to Claims 1 and 10, Shelver does not disclose, teach, or suggest this element of Claim 10, and Shelver cannot anticipate Claim 33.

Further, like Claims 1 and 10, Claim 33 recites a “muntin clip.” As stated before and stated above with respect to Claims 1 and 10, the adapter strip (120) of Shelver does not fall within the scope of amended Claim 33 because the adapter strip (120) is not a “muntin clip.” Further, the Examiner has not explained how or why the adapter strip (120) of Shelver could be considered a “muntin clip.” Thus, for this additional reason, Shelver cannot anticipate Claim 33.

## **II. Anticipation Rejections Over Leeser**

In Paragraph 3 of the Office Action, the Examiner rejected Claims 11-32 over U.S. Patent No. 3,131,440 to Leeser (“Leeser”). Leeser discloses a single-pane window for a door, having four panes of glass (13) separated by muntin bars (11,12). (Leeser, Col. 3, Lines 20-29). The muntin bars (11,12) are constructed of two pieces – a base rail (21) and a trim strip (22) – that snap together to form the bar. (Leeser, Col. 3, Lines 63-70). Each of the muntin bars (11,12) is anchored in place by an anchor bar (28) that extends through the center of the muntin bar (11,12) and into a mounting aperture (38) in the mounting strip (15) of the door. (Leeser, Col. 4, Lines 28-64). The edges of the glass panes (13) are protected by calking (17). (Leeser, Col. 3, Lines 44-47).

**A. Claims 11-17**

Claim 11, as amended, includes, among other elements, “a first pane of glass and a second pane of glass spaced from the first pane of glass by a pane separator, each of the first and second panes of glass being generally planar and having two opposed, generally planar major surfaces and a plurality of smaller edge surfaces defined by perimeters of the two major surfaces, wherein the first pane is generally parallel to the second pane and positioned such that one of the major surfaces of the first pane is in spaced and confronting relation to one of the major surfaces of the second pane.” Applicant respectfully submits that Leeser does not disclose, teach, or suggest this element of Claim 11.

The window disclosed in Leeser is a single-paned window, *i.e.*, each section of the window is only one pane thick. (See Leeser, FIGS. 1, 2, and 4). Applicant submits that the previous amendments to Claim 11 were sufficient to exclude the single-paned window of Leeser from the claim scope. Nevertheless, in the interests of furthering prosecution, Applicant has amended Claim 11 to more specifically describe the structure of a double-paned window. Claim 11 now recites: “each of the first and second panes of glass being generally planar and having two opposed, generally planar major surfaces and a plurality of smaller edge surfaces defined by perimeters of the two major surfaces, wherein the first pane is generally parallel to the second pane and positioned such that one of the major surfaces of the first pane is in spaced and confronting relation to one of the major surfaces of the second pane.” This language clearly excludes single-paned windows from the claim scope. The panes (13) of Leeser are arranged so that the smaller edge surfaces are in confronting relation to each other, rather than the planar major surfaces, as recited in Claim 11. Thus, Leeser does not disclose, teach, or suggest this element of Claim 11, and Leeser cannot anticipate Claim 11.

Further, Leeser does not disclose a “pane separator” as recited in Claim 11. Notably, the window of Leeser has no need for a pane separator, because the window is single-paned. The calking (17) pointed to by the Examiner in the Office Action is not a pane separator. First of all, the calking (17) confronts only one window pane (See Leeser, FIGS. 2 and 4), and, thus, does not separate or space two of the panes (13). Second, pane separators and calking are widely used in the window art, and the customary meaning of “pane separator” used by those skilled in the art

does not encompass the calking (17) disclosed in Leeser. Applicant points out that the Examiner has not substantively responded to the argument that Leeser does not disclose a pane separator. Thus, because Leeser does not disclose a pane separator, Leeser cannot anticipate Claim 11.

Claim 11 also includes, among other elements, “a muntin clip located between the first pane and the second pane and having a base having a first surface frictionally engaging the separator and a leg extending from the base and engaging the muntin bar.” Applicant respectfully submits that Leeser does not disclose, teach, or suggest this element of Claim 11.

Leeser does not disclose a muntin clip as recited in Claim 11. In fact, Leeser does not disclose any muntin clip. The base rail (21) pointed to by the Examiner is not a muntin clip; rather, the base rail (21) is part of a muntin bar. (Leeser, Col. 3, Lines 63-65). The window of Leeser does not need to use muntin clips, because the anchor bars (28) secure the muntin bars (11,12) to the window frame. Muntin clips and muntin bars, as well as the definitions of those terms, are very well known to those skilled in the art. The Examiner has not explained how any reasonable interpretation of the term “muntin clip,” as used by those skilled in the art, could encompass a muntin bar, particularly when Claim 11 recites a “muntin bar” as an element of the claim, clearly differentiating the term “muntin clip” from the term “muntin bar.” Further, Leeser does not disclose that any part of the base rail (21) frictionally engages the calking (17) (which the Examiner asserts is the recited “pane separator”). The Examiner has not pointed to any disclosure of such frictional engagement in Leeser. Thus, Leeser does not disclose, teach, or suggest this element of Claim 11, and Leeser cannot anticipate Claim 11.

Claims 12-17 depend from Claim 11 and contain all the elements of Claim 11. Thus, for the reasons stated above with respect to Claim 11, Leeser does not disclose, teach, or suggest all the elements of Claims 12-17, and Leeser cannot anticipate Claims 12-17.

#### **B. Claims 18, 19, and 21-24**

Claim 18, as amended, includes, among other elements, “a sash window mounted in the master frame and having a pair of parallel window panes spaced by a pane separator, each of the window panes being generally planar and having two opposed, generally planar major surfaces and a plurality of smaller edge surfaces defined by perimeters of the two major surfaces, wherein

the window panes are positioned such that one of the major surfaces of one window pane is in spaced and confronting relation to one of the major surfaces of the other window pane.”

Applicant respectfully submits that Leeser does not disclose, teach, or suggest this element of Claim 18.

As stated above with respect to Claim 11, Applicant submits that the previous amendment was sufficient to distinguish the invention recited in Claim 18 from the single-paned window recited in Leeser. Nevertheless, like Claim 11, Applicant has amended Claim 18 to more clearly eliminate the single-paned window of Leeser from the scope of Claim 18. Thus, Leeser does not disclose, teach, or suggest this element of Claim 18, and Leeser cannot anticipate Claim 18.

Further, as also described above with respect to Claim 11, Leeser does not disclose a “pane separator” as recited in Claim 18. Thus, for the reasons described above with respect to Claim 11, Leeser does not disclose, teach, or suggest this element of Claim 18, and Leeser cannot anticipate Claim 18.

Claim 18 also includes, among other elements, “a muntin clip located between the window panes and having a base with a first surface being textured to frictionally engage the pane separator and a leg extending from the base, the leg received by the muntin bar.” Applicant respectfully submits that Leeser does not disclose, teach, or suggest this element of Claim 18.

As described above with respect to Claim 11, Leeser does not disclose a muntin clip as recited in Claim 18. The Examiner has not explained how any reasonable interpretation of the term “muntin clip,” as used customarily by those skilled in the art, could encompass a muntin bar, particularly when Claim 18 recites a “muntin bar” as an element of the claim, clearly differentiating the term “muntin clip” from the term “muntin bar.” Further, Leeser does not disclose that any part of the base rail (21) is textured to frictionally engage the calking (17) (which the Examiner asserts is the recited “pane separator”). The surface of the lip (30), which the Examiner asserts is a “textured surface” does not even remotely engage the alleged “pane separator” (17). The Examiner has pointed to no disclosure in Leeser of any textured surface or frictional engagement with the calking (17). Thus, for the reasons described above with respect

to Claim 11, Leeser does not disclose, teach, or suggest this element of Claim 18, and Leeser cannot anticipate Claim 18.

Claims 19 and 21-24 depend from Claim 18 and contain all the elements of Claim 18. Thus, for the reasons stated above with respect to Claim 18, Leeser does not disclose, teach, or suggest all the elements of Claims 19 and 21-24, and Leeser cannot anticipate Claims 19 and 21-24.

**C. Claims 25-32**

Claim 25, as amended, recites that the muntin bar is “generally elongated in a first direction such that the muntin bar is dimensioned substantially greater in the first direction than in any other direction, the muntin bar having two ends located at opposed extremities of the muntin bar relative to the first direction,” and includes, among other elements, “a muntin clip comprising a base having a first surface adapted to frictionally engage the separator and a connector extending from the base and inserted into one of the muntin bar ends such that the connector extends a distance into the muntin bar in the first direction, the distance of extension being substantially smaller than the dimension of the muntin bar in the first direction.”

Applicant respectfully submits that Leeser does not disclose, teach, or suggest this element of Claim 25.

The structure (25/30) of Leeser which the Examiner asserts to be the claimed “connector” does not meet the definition of the connector recited in amended Claim 25. The amendments to Claim 25 clarify that the muntin bar is elongated in a first direction, and that “the connector extends a distance into the muntin bar in the first direction, the distance of extension being substantially smaller than the dimension of the muntin bar in the first direction.” The structure (25/30) of Leeser does not extend “a distance into the muntin bar in the first direction, the distance of extension being substantially smaller than the dimension of the muntin bar in the first direction.” On the contrary, the structure (25/30) of Leeser extends into the muntin bar (22) in a direction perpendicular to the direction of elongation of the muntin bar (22). (See Leeser, FIGS 2-4). Thus, Leeser does not disclose, teach, or suggest this element of Claim 25, and Leeser does not anticipate Claim 25.



Additionally, as described above with respect to Claim 11, Leeser does not disclose a “muntin clip” as recited in Claim 25. Leeser does not disclose any muntin clip. The Examiner has not explained how any reasonable interpretation of the term “muntin clip,” as used customarily by those skilled in the art, could encompass a muntin bar, particularly when Claim 25 recites a “muntin bar” as an element of the claim, clearly differentiating the term “muntin clip” from the term “muntin bar.” Thus, for the reasons described above with respect to Claim 11, Leeser does not disclose, teach, or suggest this element of Claim 25, and Leeser cannot anticipate Claim 25.

Claims 26-32 depend from Claim 25 and contain all the elements of Claim 25. Thus, for the reasons stated above with respect to Claim 25, Leeser does not disclose, teach, or suggest all the elements of Claims 26-32, and Leeser cannot anticipate Claims 26-32.

### **III. New Claim 41**

Applicant respectfully submits that new Claim 41 is patentable over the cited prior art. Briefly, Shelver does not disclose at least the elements, “a muntin bar located between the first pane and second pane,” and, “a muntin clip located between the first pane and the second pane.” Leeser also does not disclose these elements, and additionally does not disclose at least the elements, “a pane separator extending along at least a portion of a length of at least one of the top rail, the base rail, the first stile, and the second stile,” and, “a first pane of glass and a second pane of glass spaced from the first pane of glass by the pane separator, the first and second panes positioned completely within an area defined by the frame.” Thus, Applicant respectfully requests examination and allowance of new Claim 41.

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Reply to Office Action Mailed April 5, 2006

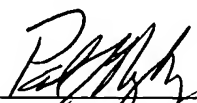
**CONCLUSION**

In view of the foregoing, Applicant respectfully requests reconsideration of the Examiner's rejections and allowance of Claims 1-19, 21-33, and 40 in the present Application. Applicant also respectfully requests examination and allowance of new Claim 41. Applicant submits that the Application is in condition for allowance and respectfully requests an early notice of the same.

Respectfully submitted,

Dated: July 5, 2006

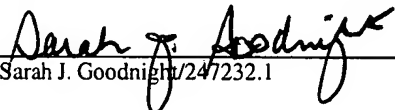
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**CERTIFICATE UNDER (37 C.F.R. § 1.8a)**

I hereby certify that this correspondence is, on the date shown below, being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Mail Stop Amendment, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 5, 2006.

  
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